BIOLOGY 370/ES 320 – SUMMER 2020
CONSERVATION BIOLOGY

Lectures: Mon.,Tues., and Thurs. 12:30- 14:20
Location: Online

Instructor: Dr. Neville Winchester
Email: ecology@uvic.ca
Office hours: Online by appointment

Course Rationale and Overview

We live on a human-dominated planet and daily there are major environmental challenges across all spatial scales that require action. Conservation Biology is a crisis discipline where applied science is used to focus on how to protect, manage, and restore natural ecosystems in the face of these challenges, while balancing the needs of people and nature. The main issues at the centre of conservation biology – biodiversity loss and extinction, habitat degradation and loss, exploitation, invasive species, and climate change – are large, complex, and challenging. They also are critically important for the future of the planet. Are there solutions? Solving these problems requires applying the principles and tools of ecology (including population biology, community ecology, and biogeography), population genetics, economics, political science and other natural and social sciences. Like medical science, conservation biology is a value-laden discipline directed by a particular worldview. It is, nonetheless, a science – to be conducted and scrutinized with clear eyes, hard numbers and relentless devotion.

Our course will focus on relating ecological theory to conservation problems, using case studies highlighting current conservation issues to ground this theory. The course is divided into three themes: 1) The Foundations of Conservation Biology; 2) Scientific Approaches to Conservation Biology; and 3) Practical Applications, in which we will integrate and apply the knowledge gained in the first two sections to real-world conservation problems.

Course Learning Outcomes

By the end of this course you should be able:

- To understand, analyze and communicate the historical context, scientific basis, and goals of conservation, as well as the fundamental ecological concepts and tools of conservation biology;
- To understand and communicate the diversity of perspectives on conservation issues, the tradeoffs involved in conservation decisions, as well as your own philosophy and perspective on conservation issues;
- To understand, analyze and interpret ecological models, graphs, and scientific results pertaining to conservation biology;
- To critically evaluate the scientific and lay literature related to conservation biology, and to place individual studies within the broader context of the discipline;

Course Materials & Communication

Suggested Text: Primack,R.B. 2018. Essentials of Conservation Biology, 6th Edition. Sinauer Associates, Inc.
Required Readings: We will also read a variety of articles, including ones from the primary literature, as well as articles from the media.

BIOL370/ES 320 Course Spaces Website:

I will post all course announcements (e.g., important Blackboard Collaborate information), readings, and assignments on the Course Spaces website. I will also post lecture slides on Course Spaces after lectures have been delivered using Blackboard Collaborate. Please be aware that these are overviews, not detailed notes, and are provided to help you organize and supplement your lecture notes. It is therefore your responsibility to check Course Spaces regularly for updates.

Course Evaluation

Learning outcomes will be assessed based on the following:

Assignments:

1: Short essay: Conservation Issue –the case for ending the herring fishery.	15%
2: Essay: Conservation Biology Paper	20%
3: Conservation Biology Poster	25%
Total	**60%**

Exams:

Midterm Exam, June 4	20%
Final Exam, June 25	20%
Total	**40%**

Overview of Evaluation Components

Assignments:

1. Short Essay-Conservation Issue: The case for ending the herring fishery. For this short essay (4 double-spaced pages), you will select and collate information pertaining to the herring/chinook salmon/killer whale conservation issue and use this information to write an analysis of this conservation issue. This paper is due on Friday, May 29th, submitted via email to me by 4:30 pm.

2. Essay- Conservation Biology Paper: This essay will consist of a succinct (max. 6 double-spaced pages) critical review of a recent peer-reviewed research article within the field of conservation biology. You will be given a choice of papers and must sign up for one (e.g., send me an email). This essay is due on Monday, June 8th, submitted via email to me by 4:30 pm.

3. Conservation Biology Poster: In teams of two, students will select a question of interest from the May 6, 2019 IPBES announcement titled 'Nature's Dangerous Decline: 'Unprecedented'; Species Extinction Rates 'Accelerating' and investigate this question using a variety of sources, including the primary literature, and media. This poster is due on June 15th, submitted via email to me by 4:30 pm.

Details and instructions for assignments will be posted on our Course Spaces website. *Assignments that are late will receive a mark of 0.0 (Please refer to UVic Policies and Procedures).

Midterm and Final Exams
The midterm and final exams will consist of multiple-choice and short answer questions. The midterm will be based upon all material covered up to and including May 4th. The final exam (June 25th) will be based on the full range of materials in this course, including lectures, assigned readings, but will be weighted towards material covered after the midterm. You are required to write both exams; the goal is to ensure that you have met the course learning outcomes.

Grading Scale:

Letter grade	Percentage
A+	90 – 100
A	85 – 89
A-	80 – 84
B+	77 – 79
B	73 – 76
B-	70 – 72
C+	65 – 69
C	60 – 64
D	50 – 59

For full UVIC grading scale see:
https://web.uvic.ca/calendar2019-09/undergrad/info/regulations/grading.html

UVic Policies and Procedures

Evaluation Policies: UVic accepts three types of excuses for missed exams or late assignments: illness, emotional trauma, or UVic-sponsored sporting activities. Requests for academic concession must be accompanied by valid written documentation from a medical doctor, UVic Counseling services, or a member of the UVic coaching staff. If you must miss the Final Exam for one of these reasons, you must notify me as soon as possible with valid documentation. Note that the Final Exam cannot be written early under any circumstances. However, it can be deferred if you are excused for one of the above reasons. When you are able to do so, you must request a Deferred Final Exam at Records Services on a Request for Academic Concession form.

Academic Integrity and Preventing Plagiarism and Cheating - Academic integrity matters are governed by UVic's Policy on Academic Integrity

I expect that all work you produce for this course will be your own, and I have zero tolerance for plagiarism in any form. Any words or ideas that are not your own MUST be acknowledged. Plagiarism includes "recycling" work from other classes, and it includes copying from online sources. It is your responsibility to familiarize yourself with UVic's Academic Integrity Policy:
https://web.uvic.ca/calendar2019-09/undergrad/info/regulations/academic-integrity.html
and the library's website on plagiarism:
https://www.uvic.ca/library/research/citation/plagiarism/

for the university policy on academic integrity and useful information on avoiding plagiarism. Any form of academic dishonesty will result in an automatic 'F' for that assignment or test and possibly the entire course for all individuals involved.

Positivity and Safety:

UVic is committed to promoting, providing and protecting a supportive and safe learning and working environment for all its members.

A note to remind you to take care of yourself:

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

- Counselling Services - Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. https://www.uvic.ca/services/counselling/

- Health Services - University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives. http://www.uvic.ca/services/health/

- Centre for Accessible Learning - The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations https://www.uvic.ca/services/cal/.

- Elders' Voices - The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.
https://www.uvic.ca/services/indigenous/students/programming/elders/index.php

The sooner you let me know your needs the quicker I can assist you in achieving your learning goals in this course.